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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,355	12/01/2003	Sydney Keith Seymour	030627/268881	1296

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EXAMINER

CORDRAY, DENNIS R

ART UNIT

PAPER NUMBER

1731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/725,355

Applicant(s)

SEYMOUR ET AL.

Examiner

Dennis Cordray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 and 21-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments and amendments, filed 12/14/2006, with respect to the rejections of claims under 35 U.S.C. 112 have been fully considered and are persuasive. Therefore, the rejections have been withdrawn.

Applicant's arguments and amendments with respect to the rejections of claims under 35 U.S.C. 103(a) have been fully considered and are partially persuasive.

Applicant argues persuasively on p 14 that the Allen reference is not directed to a testing device for determining burn characteristics and that determination of burn characteristics is a destructive test rather than a nondestructive test as claimed. Allen et al and any reference to burn characteristics have thus been removed from the current rejections. The previous rejections have been reformulated in view of newly found prior art.

Regarding the cited prior art, Applicant argues on pp 13-15 that Bokelman et al only discloses inspection stations that measure the spacing, width and contrast of the bands, and does not disclose a testing device for nondestructively determining a material property. Applicant further argues that none of the inspection stations generates a signal that triggers a testing device to determine a material property. The arguments in reference to Allen et al are moot as the reference is not used in the current rejections. With regard to Cholet, Applicant argues that the reference does not teach or suggest a separate pattern recognition device or testing in response to a signal from a pattern recognition device, but instead discloses a self-contained testing device

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that uses a two step process to first determine periodicity, and second to use the determined periodicity to perform permeability measurements at predetermined positions along the paper. Applicant argues that the claimed invention must be viewed as a whole, that the references must be considered as a whole and suggest the desirability and obviousness of making the combination, that the teaching or suggestion to make the combination and reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure, and that impermissible hindsight must be avoided.

"It should be too well settled now to require citation or discussion that the test for combining references is not what the individual references themselves suggest but rather what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. Any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure, such a reconstruction is proper." *In re McLaughlin*, 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971). The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Bokelman et al discloses one or more inspection stations to analyze the properties of the paper and suggests that the disclosed inspection device can detect the spacing, width and contrast of the bands. The use band detection devices to send signals to control other related processes is disclosed by Seymour et al (US 2004/0122547), as detailed in the current rejections, thus was also known to those of ordinary skill in the art at the time of the invention. The measurement of permeability is revealed by Cholet as an important parameter in paper strips having alternating layers of porosity (p 1, pars 1-4). It would thus have been obvious to one of ordinary skill in the art to modify one of the inspection stations of Bokelman et al to measure this important property.

The permeability measurements of Cholet require a means for determining the location of the bands, the means providing a signal to control the positioning of the paper and operation of the permeability testing device. Cholet applies the means by making a first series of measurements (preliminary stage) to determine the permeability profile of the paper strip over a length covering two successive band segments, computing the spacing of the bands for future measurements and directing the future positioning of the paper and operation of the permeability testing device (p 1, pars 12-14). An equivalent means for determining the location of the bands is provided by the pattern detection device of Bokelman et al. It would have been obvious to one of ordinary skill in the art to use either means for determining band location in an automated inspection system and to use a signal from the band detection means to direct the permeability testing.

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All of the elements required for the instant invention were known and would have been obvious to one of ordinary skill in the art at the time of the invention, as was the rationale for combining them. The combination would have been done with a reasonable expectation of success.

### ***Drawings***

The drawing was received on 12/14/2006. This drawing is acceptable.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 8-15, 17-19, 21-23 and 25-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bokelman et al (5966218) in view of Cholet (WO 03/019132 A1, US 2004/0187560 used for English translation) and further in view of Seymour et al (US 2004/0122547).

Claims 1-2, 4-6, 8, 18-19, 21-23, 25-26 and 28-31: Bokelman et al teaches that it is known to inspect a banded cigarette paper, which comprises a repeating pattern of first and second bands, by unwinding it from a first bobbin, inspecting the paper between bobbins, and rewinding the paper onto a second bobbin. Bokelman et al discloses a procedure and apparatus for examining banded cigarette wrapping paper. The paper is unwound from a first bobbin and wound onto a second (rewind)

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bobbin. One or more inspection stations (testing device or pattern detection device) can be used between the bobbins to determine properties of the paper. In particular, the band pattern on the paper is detected by one of the inspection stations via analysis of reflections from an elongated beam of light directed onto the paper (Abs; col 2, lines 38-43). The band or pattern detection device is thus configured to receive the paper unwound from the first bobbin. The pattern detection device communicates with a remote computer, thus generates a signal in response to the analysis that is analyzed to determine the spacing, width and average contrast of the bands (col 2, lines 54-59). A magnetic braking device cooperates with the first bobbin to control the tension in the paper (col 4, lines 27-33). The paper is wound onto the second bobbin by using a drive wheel to induce rotation of the second bobbin through frictional contact (col 5, lines 1-8).

Bokelman et al does not disclose that a testing device for nondestructively measuring a material property or that the pattern detection device and testing device are in communication with one another. Bokelman et al also does not disclose stopping the paper at selected positions so that individual bands could be tested.

Cholet discloses an automated testing apparatus and method for determining the permeability of a porous material having alternating porosity levels. The porous material can be a cigarette wrapping paper with bands of alternating porosity and the testing can be performed on an individual band. The measurement of permeability is revealed by Cholet as an important parameter in paper strips having alternating layers of porosity (p 1, pars 1-4). The measurement apparatus comprises two chambers that engage at opposite sides of a sample paper and define a sample area that is smaller

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than the dimensions of the bands in the paper (p 1, pars 3-6; p 2, par 30). The testing process is automated, with an advancement device (stepping motor and drive rollers) advancing the paper and the testing device actuated while the paper is stopped after each advancement to make a measurement. Based on a first series of measurements, the pattern of bands on the paper is calculated, thus the device is a pattern detection device. An attached processor performs the calculations and controls the future actions of the stepper motor and the measurement device during additional testing (p 1, pars 10-14; p 2, pars 31-44; Claim 7).

Cholet does not disclose controlling the measurements using signals from a pattern detection device.

Seymour et al discloses a method for manufacturing cigarettes having banded paper comprising measuring the location of a band 1507 on paper web 55 with a band detector 95 (pattern detector), which generates a signal 1530 that is processed by a servo controller 1525, the servo controller directing the applicator 70, a flying knife cutter 1568 and the speed of the machine to provide correct registration of the bands (Fig. 15; p 19, pars 138-140). It was thus known to those of ordinary skill in the art at the time of the invention to use band detection devices to send signals to control other related processes.

The art of Bokelman et al, Cholet, Seymour et al and the instant invention is analogous as pertaining to the measurement of properties of banded cigarette paper. The permeability measurements of Cholet require a means for determining the location of the bands, controlling the positioning of the paper and operation of the permeability



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testing device. Cholet applies the means by a first series of measurements (preliminary stage) to determine the permeability profile of the paper strip over a length covering two successive band segments, computing the spacing of the bands for future measurements and directing the future positioning of the paper and operation of the permeability testing device (p 1, pars 12-14). An equivalent means for determining the location of the bands is provided by the pattern detection device of Bokelman et al.

It would have been obvious to one of ordinary skill in the art to include automated permeability testing by using a controller to detect signals from the pattern detection device, to control the paper advancement (drive) device and direct permeability testing in the inspection device of Bokelman et al in view of Cholet and further in view of Seymour et al to provide additional important data with less expenditure of time or money. It would have been obvious to stop the paper at selected positions so that individual bands could be tested.

Claims 3, 9-15, 17 and 27: Bokelman et al does not disclose that the second bobbin can be used on a cigarette manufacturing device or that the paper examining apparatus and a cigarette manufacturing device can be used together as system. Bokelman et al also does not disclose that the bobbins are interchangeable or that they are adapted to be used on a cigarette manufacturing device.

Bokelman et al teaches that many bobbins of paper must be inspected in a day, thus speed is a significant factor (col 1, lines 15-39). Bokelman et al also discloses that the bobbins are easily and quickly mounted and removed (col 2, lines 34-37). While the use of interchangeable first and second bobbins is not explicitly disclosed by Bokelman

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et al, it would have been within the general skill of one of ordinary skill in the art to use the same kind of bobbins for both first and second bobbins and to use bobbins that are directly usable on a cigarette manufacturing device to eliminate the need for an additional costly step of rewinding the paper onto a suitable bobbin. It would further have been obvious to use the examined paper on a cigarette manufacturing device, thus establishing a system comprising a cigarette manufacturing device and cigarette paper testing apparatus. It would have been obvious, after removing the fully rewound second bobbin, to replace it with the empty first bobbin to receive the next supply of tested paper.

Claims 7, 16 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bokelman et al in view of Cholet and further in view of Seymour et al and George et al (3032245).

Bokelman et al, Cholet and Seymour et al do not disclose a tension control device comprising a paper engaging member between the first and second bobbins.

George et al disclose a variety of methods used to control tension in a moving web of paper (col 1, lines 9-17). The methods include a belt contacting the supply wheel (brake), spring controlled rollers that contact (operably engage) the web, and a vacuum box, across which the web travels (and operably engages) (col 2, lines 36-51).

The art of Bokelman et al, Cholet, George et al and the instant invention are analogous as solving the problem of controlling of tension in a moving band of paper. It would have been obvious to one of ordinary skill in the art to use one or more of the

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claimed tension controlling devices in the inspection device of Bokelman et al in view of Cholet and further in view of Seymour et al and George et al as a functionally equivalent option.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
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